# Above-Grade Parking Structures

In order to calculate the cost of above-grade parking, you need to know the number of spaces needed, number of levels, and the size of the site. The answers have a major impact on the cost per space figure for a particular parking structure.

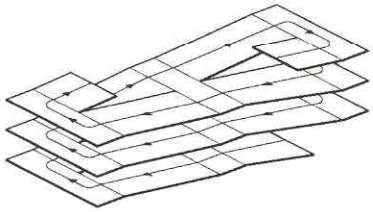
Cost per space is dependent on two factors: (1) *area per space* and (2) *cost per square foot.*

AREA PER SPACE is affected by several factors:

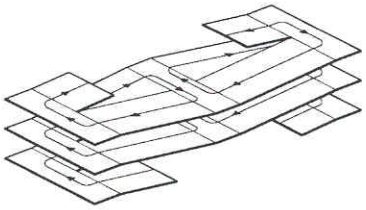
Type of user - retail customer parking requires more generous parking dimensions than office employee parking, hence a higher area per space.

Width of site - a narrow site may dictate a shallow angle of parking which results in a higher area per space than steeper angles or ninety-degree parking.

City parking requirements - some cities require wider spaces and aisles than others, no matter who the user is, resulting in a higher area per space.



*Two-Bay Double Helix*



*Two-Bay End-to-End Loop*

Type of flow system - a level-floor structure with connecting express ramps will result in a higher area per space than one with sloping parking ramps. A two-bay structure with a double-helix configuration will have a lower area per space than a two-bay structure with an end-to-end loop configuration.

Shape of site - irregular shapes create wasted areas within the parking structure.

COST PER SQUARE FOOT is affected by these factors:

Geographical location - costs vary considerably by geographic region.

Number of levels - taller structures have a higher average cost per square foot because elevated levels are more costly than the ground level.

Shape of site - the length of exterior facade per square foot of area is greater on small sites than on large sites and greater on long, narrow sites than on square sites, resulting in higher costs.

Topography - sloping sites usually result in expensive retaining walls.

Poor soil conditions result in higher foundation costs.

High-level exterior architectural treatment - increases costs significantly.

The following table indicates typical costs for above-grade parking structures in **Southern California**, assuming good soils and level sites.

## Typical Construction Costs per Space for Above-Grade Parking - Southern California*

| | **Small Site** 30,000 s.f. | | **Medium Site** 60,000 s.f. | | **Large Site** 90,000 s.f. | |
|---|---|---|---|---|---|---|
| | Customer Parking 350 s.f./car | Employee Parking 320 s.f./car | Customer Parking 335 s.f./car | Employee Parking 300 s.f./car | Customer Parking 325 s.f./car | Employee Parking 290 s.f./car |
| Surface Parking | $2,048 | $1,872 | $1,960 | $1,755 | $1,901 | $1,697 |
| Ground + 1 Level | $8,088 | $7,394 | $7,055 | $6,318 | $6,559 | $5,853 |
| Ground + 2 Levels | $9,009 | $8,237 | $7,774 | $6,962 | $7,225 | $6,447 |
| Ground + 3 Levels | $9,367 | $8,564 | $8,035 | $7,196 | $7,462 | $6,659 |
| Ground + 4 Levels | $9,746 | $8,911 | $8,349 | $7,476 | $7,757 | $6,922 |
| Ground + 5 Levels | $9,999 | $9,142 | $8,558 | $7,664 | $7,954 | $7,097 |
| Ground + 6 Levels | $10,179 | $9,307 | $8,707 | $7,797 | $8,094 | $7,222 |
| Ground + 7 Levels | $10,314 | $9,430 | $8,819 | $7,898 | $8,199 | $7,316 |
| Ground + 8 Levels | $10,420 | $9,526 | $8,906 | $7,976 | $8,281 | $7,389 |

*Assumes rectangular site, 120' minimum site width, good soil conditions, quality finishes.*
**For current Bay Area costs, multiply the above by 20-25% for a simple facade, 50% for an elaborate facade.*